Method and apparatus for optimizing transmission security and failure security in high-bitrate data networks

The invention relates to a method and to an apparatus for optimizing transmission security and failure security in high-bit-rate data networks by-means-of signal line redundancy between the network nodes, whereby parallel signal lines can optionally be occupied, or can be switched, as working lines or protection lines, and selectors, bridge circuits, and interface modules are respectively provided at the network node side. According to the invention, each of the parallel signal lines is connected at the network node side with a respective interface module, whereby all interface modules are in principle in the active state. Given failure of one of the interface modules, this failure is immediately countered by a signal line changeover, and line errors are immediately countered by the provided interface module redundancy. Error messages can be transmitted, via a corresponding link, between the interface modules of the incoming and outgoing parallel signal lines in each of the network nodes.

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